

K1029 two fragments of silver-alloy cast hilt plate

Condition Report

Conservation Started: 5.2.2013

Conservation Finished: 5.2.2013

Conservator: Julia Leunge

Time Taken: 5 hours

Including digital photography, report, conservation and packing.

Dimensions: a (L) 28.5 mm (W) 18 mm (D) 6 mm (Th.) 1-1.5 mm

b (L) 20 mm (W) 4 mm (Th.) 0.5-1 mm

Weight before: a 6.20 g

b 0.85 g

Weight after: a 5.24 g

b 0.85 g

Catalogue number: 372

(K1029b renumbered to K1942)

Digital photography:

Taken with a Nikon Coolpix 4500 digital camera, using overhead lights. Taken before and after.

Annotation on any of the storage bags or boxes:

-

Description:

Visual and microscopic examination using Meiji stereo microscope 20x magnification

Two fragments of silver-alloy cast hilt-plate, both with flange.

A: larger fragment, one end from the underside of the upper guard. 3 rivet holes at the tip in a triangular configuration. One stub remains.

B: (now re-accessioned as K1942, 0.85g) smaller fragment is of thinner metal, also from one end of a hilt-plate. Certainly from a different plate. Remains of one rivet hole are visible. Faint traces of surface gilding.

(Notes C. Fern)

Associated Objects:

-

Pre-Conservation Condition: Visual and microscopic examination using Meiji stereo microscope 20x magnification.

A: Tarnished on the entire visible surface, some purple silver chloride on the tip. Green copper corrosion products are present on the front as well as the back.

The back of the fragment is filled with soil. Some of the stones in the soil measure >1 mm

B: The entire surface shows tarnishing. Some tool marks are visible on the back. Green copper corrosion is visible on the front around the rivet hole. Some soil is present on the surface.

Treatment: Carried out using a Meiji stereo microscope

Purpose: Study / Analysis

Aim: Total cleaning

Materials: Soft natural/synthetic brushes, thorn in pin vice/holder, IMS, 50:50 water/IMS, cotton wool swabs, cocktail stick, Paraloid B72

The granular soil on the front and back was mechanically removed or reduced where possible using a fine thorn tip secured in a pin vice and a small pure bristle brush. 50:50 IMS/water was used to soften the soil to facilitate removal. Loose particles of soil were then removed with a small swab of IMS.

The green copper corrosion products were left in situ; corrosion was not active and can be further cleaned or stabilised at a later date.

The paper K number was adhered to the back with HMG brand Paraloid B72 (ethyl methacrylate copolymer) from the tube, applied with a cocktail stick.

A storage box padded with white polyethylene foam was made for housing the object. A strip of Tyvek (spun bound polyethylene fibres) was used as a cushion for the object and to help lift it out of the foam.

Post-Conservation Condition/Findings:

A: very brittle, especially the inside surface. Possibly some traces of gilding are present on the surface.

Key Features:

A: Rivet holes and stub of rivet that is still intact, traces of gilding.

B: Traces of gilding.

Analysis Undertaken:

Surface and subsurface analysis was carried out using the Bruker Mistral M1 XRF. This analysis formed part of the silver pilot study for the English Heritage programme. To access the core (sub-surface) of the object a small area on the surface was removed from the edge of the hilt-plate. Due to errors detected another area had to be prepared on a flat surface.

Samples:

1: Soil from the front and side surfaces of object A

- 2: Soil from the back surface of object A
- 3: Soil sample of the front, sides and back surfaces of object B

References:

Fern, C. *Hoard conservation notes* 2012